LaFleur Brooks' Health Unit Coordinating

7th edition

Chapter 21

Reports, Infection Control, Emergencies, and Special Services

Lesson 21.1

Incident Reports, Infection Control, and Diseases Transmittable through Contact with Blood and Body Fluids

1. Define the terms in the vocabulary list.
2. Write the meaning of the abbreviations in the abbreviations list.
3. Identify four categories of incidents that would initiate an incident report and explain the purpose of completing an incident report.
4. Identify six components that constitute the chain of infection and list four types of personal protective equipment used as barriers between the practitioner (health care worker) and the patient's body fluids.

Lesson 21.1

Incident Reports, Infection Control, and Diseases Transmittable through Contact with Blood and Body Fluids (cont'd)

5. List four examples of diagnosed infections that would require a patient to be placed in airborne isolation.
6. Identify the most common way to confirm and identify microorganisms and to determine which antibiotic will destroy the identified microbes.
7. Identify three circumstances that would cause a patient to become immunocompromised and in need of being placed in reverse or protective isolation.
8. Discuss ways in which an individual working in the hospital environment can reduce his or her risk of infection.

Lesson 21.1

Incident Reports, Infection Control, and Diseases Transmittable through Contact with Blood and Body Fluids (cont'd)

9. Discuss four primary ways that the human immunodeficiency virus (HIV) may be transmitted from one person to another and identify two opportunistic diseases related to acquired immunodeficiency syndrome (AIDS).
10. Identify a highly contagious virus transmitted through blood and body fluids and an airborne pathogen that would require health care providers to take extra precautions such as blood and fluid precautions and to use special personal protective equipment (PPE).
11. Discuss the pathogenic microorganisms that are frequently responsible for nosocomial infections and the best way for health care providers to stop the spread of these hospital-acquired infections.

Incident Reports

- An event that does not normally occur within the regular health care facility routine and may involve patients, visitors, physicians, hospital staff, or students
- Should be completed for all incidents that occur to anyone, no matter how insignificant they may seem
- Documentation of all incidents is important in identifying hazards and preventing continuing problems and in the case of a lawsuit that may arise from them.

Incident Reports, cont'd

- The names and home addresses of witnesses are required in case the incident should become a lawsuit.
- The attending doctor, hospitalist, or resident may be called to examine the patient involved in an incident.
  - All incidents involving patients are reported to the attending doctor.
- Copies of the incident report are sent to the nurse manager, risk management, quality assurance, and the manager of any other department involved.

Employee Hospital Incidents

- Must be documented and the employee seen by the employee health nurse or evaluated by a doctor to be eligible for coverage by the State Workman's Compensation Commission.
- Hospital employees who fail to put into writing something that may appear trivial and then have no evidence to present should an infection develop after the injury is incurred
  - E.g., a finger puncture with a needle

Incidents that Require Written Reports

- Accidents
- Thefts from persons on hospital property
- Errors of omission of patient treatment
- Errors in administration of patient treatment including medication
- Exposure to blood and body fluids, as may be caused by a needle stick

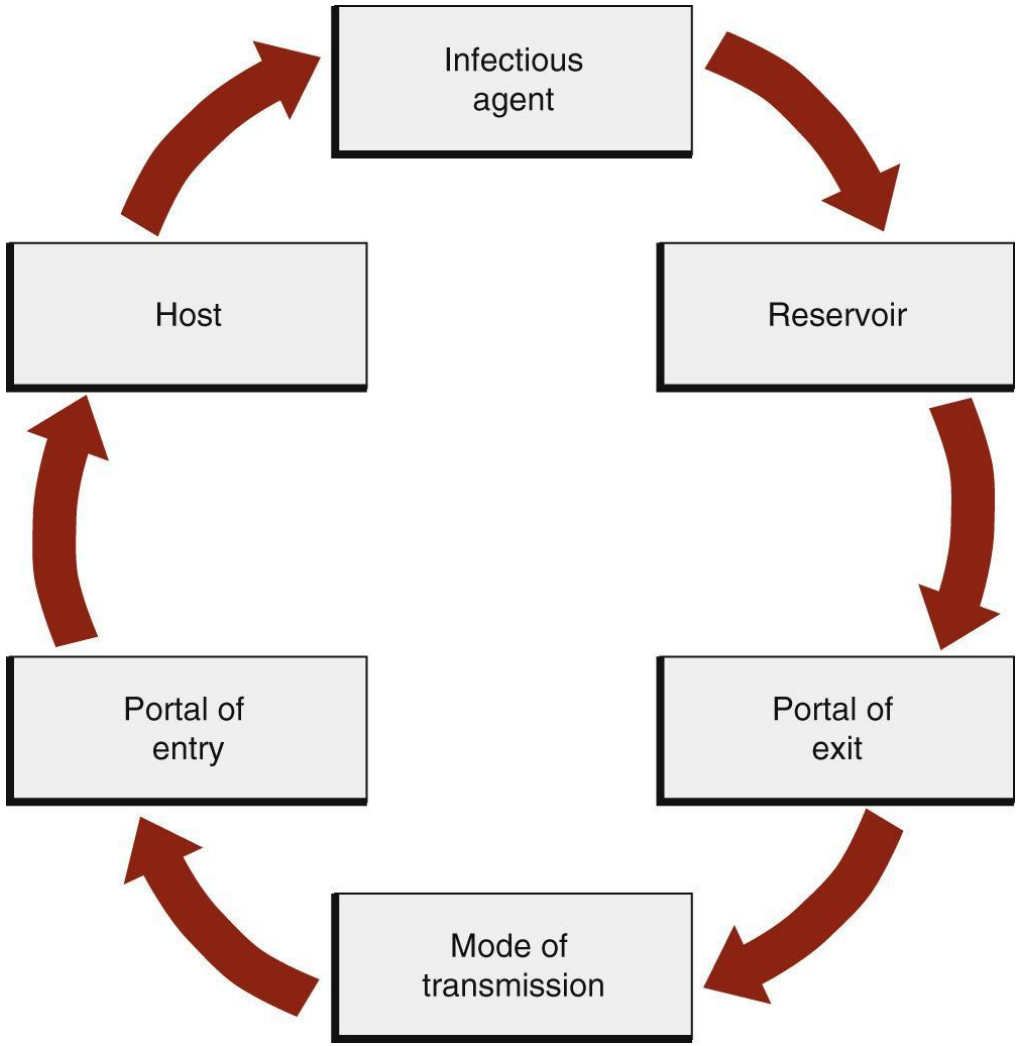
Infection Control

- For statistical purposes, records of infectious diseases must be maintained.
- A report should be submitted to the infectious disease department.
- Most hospitals employ an epidemiologist or an infection control officer, who maintains all infection records and investigates all hospital-acquired infections.

Chain of Infection

- Development of an infection depends on six components called the chain of infection:
  - Infectious agent or pathogen (bacteria)
  - Reservoir or source in which pathogen can live and grow
  - Means of escape (blood,urine, feces, wound drainage)
  - Route of transmission (air, contact, and body excretions)
  - Point of entrance (mouth, nostrils, and breaks in the skin)
  - Susceptible host (individual who does not have adequate resistance to the invading pathogen)

Chain of Infection, cont'd



Standard Precautions

- Involve the creation of a barrier between the health care worker and patient's body fluids
- Used with all patients in health care settings, under the assumption that all body excretions and secretions are potentially infectious
- Apply to nonintact skin, mucous membranes, and body fluids including blood, semen, vaginal secretions, peritoneal fluid, pleural fluid, pericardial fluid, synovial fluid, cerebrospinal fluid, amniotic fluid, urine, feces, sputum, saliva, wound drainage, and vomitus

Standard Precaution Barriers

- The barrier in standard precautions is created by the wearing of personal protective equipment (PPE) consisting of such items as:
  - Gloves
  - Gown
  - Mask
  - Goggles or glasses
  - Pocket masks with one-way valves
  - Moisture-resistant gowns

An Example of a Fitted Tuberculosis Mask, Gown, and Goggles

Airborne Precautions (Isolation)

- Used for patients in whom infections are transmitted through the air
- Reduce the risk that droplet nuclei or contaminated dust particles may travel over short distances (less than three feet) and land in the nose or mouth of a susceptible person
- Patient is placed in a private room with monitored negative air pressure and high-efficiency filtration.
- Individuals who enter the room are required to wear masks, gloves, and gowns and wash hands.

Diagnosed Infections that Require Patient to be Placed in Airborne Isolation

- Active tuberculosis (TB)
- Measles
- Chicken pox
- Meningitis

Identifying Microorganisms and Determining Treatment

- A culture is the most common way to confirm and identify microorganisms.
- Sensitivity testing determines which antibiotics will destroy the identified microbes.

Reverse or Protective Isolation

- Reverse or protective isolation is used to protect patients with decreased immune system function by reducing their risks of exposure to potentially infectious organisms.
- Patients who are immunocompromised include:
  - Organ transplant recipients
  - Burn victims
  - Those receiving chemotherapy

How Health Care Workers can Reduce Risk of Infections

- Hand washing is the most important precaution against infection, and may be more effective against some pathogens than alcohol-based wipes or gels.
- Hands should be washed when one arrives at work, before and after personal breaks, and after any patient specimen is handled (even if bagged):
  - Use soap and scrub between the fingers.
  - Rinse each hand thoroughly with running water from the wrists down to the fingertips.
  - Dry with a clean paper towel and use the towel to turn off the faucet.

Primary Ways Human Immunodeficiency Virus May be Transmitted

- Sexual contact
- Use of needles that were previously injected into someone who carried the AIDS virus
- An infected mother to her infant during pregnancy, birth, or breastfeeding
- Through blood transfusions

Opportunistic Diseases Related to AIDS

- Two most frequent opportunistic illnesses that may overtake the AIDS patient:
  - Pneumocystis carinii pneumonia (PCP): pneumonia caused by pneumocystis carinii
  - Kaposi's sarcoma (KS): an otherwise rare skin cancer

Hepatitis B Virus (HBV)

- Spread by body fluids
- More contagious than HIV
- Health care providers are at risk for exposure.
- Standard blood and body fluid precautions must be practiced.
- OSHA mandates that employers provide hepatitis B vaccine for all employees who have an occupational exposure risk.
  - Vaccines are given in three doses over a 6-month period.

Tuberculosis

- Caused by *Mycobacterium tuberculosis*, an airborne pathogen
- Requires the use of special PPE, such as special masks fitted to the individual health care worker, so that one can avoid inhaling the tiny droplets that carry the virus through the air

Nosocomial Infections

- Infections acquired from within the health care facility
- Often transmitted to the patient by health care workers
- Pathogenic microorganisms frequently responsible for infections include:
  - Streptococcus
  - Staphylococcus
  - Clostridium
  - Enterococcus
  - Pseudomonas
  - Methicillin-resistant staphylococcus aureus (MRSA)

Lesson 21.2

Infection Control, Emergencies, and Special Services

12. Discuss health unit coordinator (HUC) tasks related to prevention of infection in the hospital work environment.
13. Identify the meaning for each of the following color emergency call codes: red, blue, orange, pink, gray, and silver.
14. Identify the communication tool that provides details on chemical dangers and safety procedures.

Lesson 21.2

Infection Control, Emergencies, and Special Services (cont'd)

15. Explain the RACE system and describe what the responsibilities of the HUC would be during a fire code and a disaster procedure.
16. List six guidelines that should be followed for electrical safety.
17. Identify events that would activate the hospital disaster procedure.
18. List nine tasks that the HUC may perform in a medical emergency.
19. Describe how to handle flowers and mail delivered to the unit.

HUC Tasks for Infection Control

- Accurate information must be given to inquiring visitors.
- Order PPE and isolation packs as needed and as requested.
- Wear gloves when handling or transporting specimens and practice good hand-washing technique throughout the working day.
- Eating, drinking (open cups), and handling of contact lenses should not be done at the nursing station.

Guidelines Regarding Confidentiality and AIDS Patients

- One does **not** put “diagnosis of AIDS” or “rule out AIDS” on the computer.
- The primary diagnosis is the infection, symptoms, or cancer.
  - AIDS becomes the secondary diagnosis and appears on the medical record but not in the computer.
- Family, friends, and other persons may not know about the AIDS diagnosis and must not be told by any health care employee unless so advised by the doctor.

Current Emergency Call Codes

- Code Blue (cardiac or respiratory arrest)
- Code Red (fire)
- Code Orange (hazardous material spill)
- Code Pink or Amber Alert (infant or child abduction)
- Code Gray (combative person)
- Code Silver (person with a weapon or hostage situation)

The Material Safety Data Sheet (MSDS)

- All employees will receive chemical safety training during orientation regarding OSHA requirements for hazardous chemicals.
- Chemicals must be labeled with a statement of warning and a statement of what the hazard is, in order to eliminate risk and facilitate first aid measures undertaken in the event of a spill or exposure.
- A material safety data sheet (MSDS) is a communication tool that provides details on chemical dangers and safety procedures.

Fire and Electrical Safety and HUC Responsibilities

- Fire and electrical safety is also a part of employee orientation.
- It is essential that all employees be aware of the location of fire extinguishers.
- The HUC may be expected to assist with the evacuation of patients who are endangered by the fire.
- If the fire is not on the unit, the HUC may help nursing personnel to close the doors to patient rooms.

RACE System

- **R**escue individuals in danger.
- **A**larm: Sound the alarm.
- **C**onfine the fire by closing all doors and windows.
- **E**xtinguish the fire with the nearest suitable fire extinguisher.

Classes of Fire

- Class A: wood, paper, clothing
- Class B: flammable liquids and vapors
- Class C: electrical equipment
- Class D: combustible or reactive metals

Guidelines for Electrical Safety

- Avoid the use of extension cords.
- Do not overload electrical circuits.
- Inspect cords and plugs for breaks or fraying.
- Unplug equipment when servicing.
- Unplug equipment that has liquid spilled on it.
- Unplug and do not use equipment that is malfunctioning.

Disaster Procedure

- A planned procedure that is carried out by hospital personnel when a large number of persons have been injured
- All hospitals in the United States have developed disaster or emergency preparedness plans that outline chains of command, communication procedures, and other important protocols to keep the hospital running in a crisis.
- Rapid access to information is critical – it can sometimes mean the difference between life and death.

Disaster Procedure, cont'd

- A disaster may include a multiple injury car, train, or airplane accident, a bombing, earthquake, infectious disease outbreak, a group of people exposed to hazardous chemicals, etc.
- Wireless technologies are becoming part of hospital disaster preparedness plans.
  - Example: Vocera's 802.11 voice devices can be integrated with data event notification and escalation applications, critical alert and alarm systems.

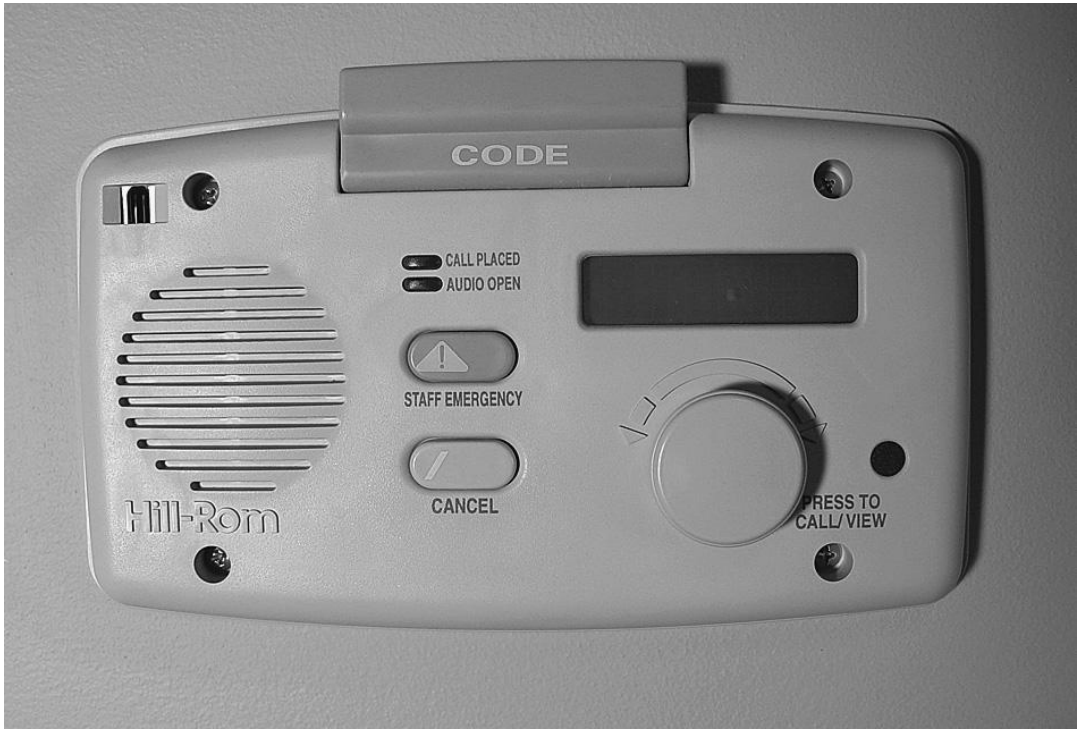
Disaster Procedure, cont'd

- The HUC usually is designated to handle communication and, if necessary, call off-duty health care personnel to assist in caring for hospital patients and disaster victims and in handling communications.
- The role of the HUC may vary among hospitals.

Medical Emergencies

- Life-threatening situations referred to as code arrests or more commonly, code blue, and include:
  - Cardiac arrest
  - Respiratory arrest
- A call system installed in patients' rooms allows hospital personnel to alert the hospital operator, as well as the nursing station and even nursing staff directly, of a patient's code.

A Call System in Patients' Rooms



Medical Emergencies, cont'd

- The hospital telephone operator announces the code so that personnel who need to respond will also be notified.
- The code or crash cart is taken to the code arrest patient’s room immediately. It is important for the HUC to know the location of the crash cart.

Crash Cart

Special Services

- Flowers may be delivered to patients by a volunteer or may be delivered to the nursing station.
- The HUC should ascertain that the patient is still on the unit before signing for and accepting the flowers.
- The HUC must be aware of any restrictions:
  - Flowers are not allowed on some nursing units, such as cardiopulmonary units and intensive care units.

Special Services, cont'd

- Mail is delivered to the nursing unit daily.
- It is checked, and the patient's room and bed numbers are written on each envelope.
- In the event that the patient has been discharged, the HUC would write "discharged" in pencil on the envelope and return it to the mailroom.